

INTERNATIONAL SEARCH REPORT

International Application No
PCT/BR2004/000121A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 F25B39/02

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 F28F F25B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0 407 353 A (SIGNET SYSTEMS INC) 9 January 1991 (1991-01-09)	1-3
Y	column 1, line 1 - column 2, line 2; figures 1,5 column 2, line 32 - column 3, line 5 column 5, line 40 - column 6, line 32	4-6
Y	US 5 910 166 A (JUNGE BRENT A ET AL) 8 June 1999 (1999-06-08) column 1, line 62 - column 2, line 14; figures 4,5 column 3, line 33 - column 4, line 5 column 4, lines 25-46 ----- -/--	4-6

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- *G* document member of the same patent family

Date of the actual completion of the international search

26 October 2004

Date of mailing of the international search report

03/11/2004

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax (+31-70) 340-3016

Authorized officer

Léandre, A

INTERNATIONAL SEARCH REPORT

International Application No

PCT/BR2004/000121

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	PATENT ABSTRACTS OF JAPAN vol. 010, no. 051 (M-457), 28 February 1986 (1986-02-28) -& JP 60 200089 A (HITACHI SEISAKUSHO KK; others: 01), 9 October 1985 (1985-10-09) abstract; figure 3	1-3
X	PATENT ABSTRACTS OF JAPAN vol. 1995, no. 07, 31 August 1995 (1995-08-31) -& JP 07 103609 A (NIPPONDENSO CO LTD), 18 April 1995 (1995-04-18) abstract; figure 1	1,2
A	PATENT ABSTRACTS OF JAPAN vol. 012, no. 381 (M-752), 12 October 1988 (1988-10-12) -& JP 63 131989 A (FUJITSU GENERAL LTD), 3 June 1988 (1988-06-03) abstract; figure 2	1-4
A	GB 1 286 446 A (JOHANNES BURGMESTER & CO) 23 August 1972 (1972-08-23) page 1, lines 20-43 page 1, lines 69-73; figures 1,3	1-3
A	PATENT ABSTRACTS OF JAPAN vol. 006, no. 157 (M-150), 18 August 1982 (1982-08-18) -& JP 57 073392 A (HITACHI LTD), 8 May 1982 (1982-05-08) abstract	1-3
A	US 6 557 372 B1 (VUJICIC MILOS ET AL) 6 May 2003 (2003-05-06) abstract column 1, lines 24-41 column 2, lines 41-65	1

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/BR2004/000121

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 0407353	A	09-01-1991	US 4995453 A	26-02-1991
			AT 106134 T	15-06-1994
			AU 616098 B2	17-10-1991
			AU 4892390 A	10-01-1991
			CA 2009232 A1	05-01-1991
			DE 69009112 D1	30-06-1994
			DE 69009112 T2	08-12-1994
			EP 0407353 A2	09-01-1991
			ES 2058872 T3	01-11-1994
			HK 1008134 A1	30-04-1999
US 5910166	A	08-06-1999	NONE	
JP 60200089	A	09-10-1985	NONE	
JP 07103609	A	18-04-1995	NONE	
JP 63131989	A	03-06-1988	JP 3001592 B	10-01-1991
GB 1286446	A	23-08-1972	NONE	
JP 57073392	A	08-05-1982	JP 1408053 C	27-10-1987
			JP 62014751 B	03-04-1987
US 6557372	B1	06-05-2003	JP 2003222421 A	08-08-2003